



Active Lessons Delivery: Concept and example in HICAP

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Lessons Learned (LL) Systems Knowledge Management (KM)



Lessons learned systems: A Knowledge Management solution for storing, retrieving, and reusing experiential working knowledge.

Intended to promote knowledge sharing & leveraging.



Some Lessons Learned Centers

Lessons Learned and Best Practices Links - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Shop Stop

Bookmarks Location: <http://www.aic.nrl.navy.mil:80/~aha/lessons/> What's Related

Instant Message WebMail Radio People Yellow Pages Download Calendar

[AAAF'00 Workshop on Intelligent Lessons Learned Systems](#)

Lessons Learned and Best Practices Links

[Canada](#) | [International Organizations](#) | [United States](#) | [SIPRNET Pointer](#)

Canada

- [Army Lessons Learned Centre](#)

International Organizations

- American, British, Canadian, and Australian Armies' Standardization Program (ABCA)
 - [Coalition Operations Lessons Learned Database \(COLL\)](#)
- United Nations
 - Department of Peacekeeping Operations
 - [Lessons Learned in Peacekeeping Operations](#)
 - Office of Evaluation and Studies
 - [International Fund for Agricultural Development](#)

United States

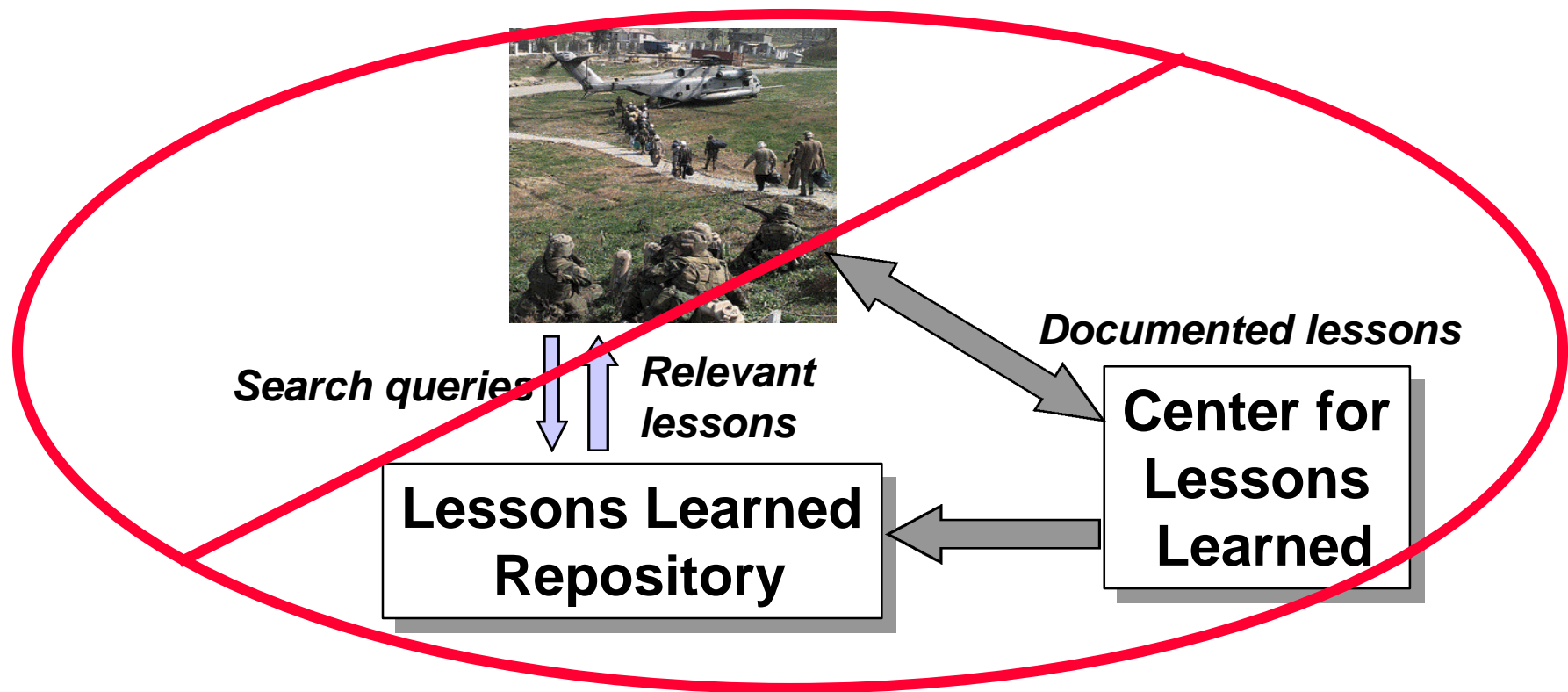
Department of Defense

- Air Force
 - [Air Force Acquisition Reform Success Stories](#)
 - [Air Combat Command Center for Lessons Learned](#)

http://www.ifad.org/ifadeval/public_html/about/ile



General Architecture for LL Systems



Do LL systems promote knowledge sharing??
Have they been incorporated to the learning organization's culture??



Problem: LL Systems do not seem to be promoting knowledge sharing

Reasons:

System Issue:

- they are standalone;

Information Issue:

- lessons are not well-defined and complete;

Unrealistic Assumptions Users:

- users know about LL systems, and where to find them;
- users have the time and the skills to search (i.e., learn to use) them;
- users can correctly interpret the lessons and reuse them successfully;
- users are reminded of their possible utility when needed;



When is knowledge needed or useful??

- when a task is to be performed;
- when a decision is about to be made:

**Knowledge is useful during planning,
decision-making, and execution.**



Knowledge is useful during decision-making.

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Most KM tasks are performed in the context of a well-defined (e.g., business) process, and any techniques designed to support KM must be embedded in it.

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embed lessons learned in decision-support systems.



An Active Lessons Delivery System



- not standalone;
 - a lessons delivery agent is embedded in a decision support system;
 - user is within the decision-making environment (i.e., managing tasks);
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- when the user changes world state conditions, the agent checks if there are lessons that apply and does one of:
 - a) a lesson applies to the current decision
then that lesson is shown to the user immediately;
 - b) a lesson applies to a decision other than the current decision
then that lesson is highlighted without interrupting the user.



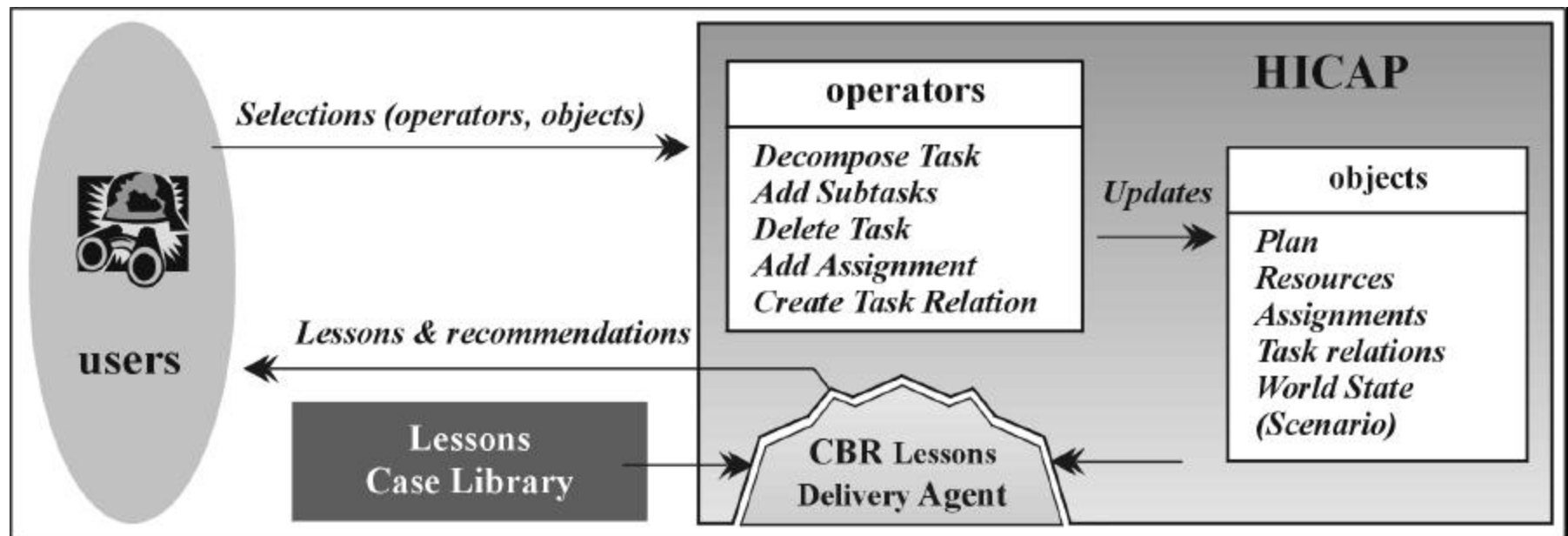
Implications of Active Lessons Delivery



- user doesn't need to know the agent exists;
- user doesn't need to learn to use it, it is active;
- no additional time is required for its use;
- lessons and suggestions are stated clearly;
- suggestions are related to the current decision;
- user is told about the lesson only if it is useful.



Our Solution: Active Lessons Delivery in HICAP





The lessons learned process

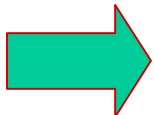
- starts when a decision/task is about to be made;
- world state conditions match an applicable lesson;
- the applicable lesson contributes knowledge to perform the task/make a decision;
- the process is only completed when the lesson is learned, *i.e.*, knowledge is reused and a process has been changed.

*The system that captures this process
promotes knowledge sharing.*



Directions



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1. Review: lessons learned systems
 2. Active Lessons Delivery: Design, implementation
 3. Example in HICAP
 4. Lesson representation
 5. Evaluation: effect in plans
 6. Lesson elicitation
 7. Evaluation of overall project



Intelligent Lessons Learned Systems Workshop



AAAI-00 Workshop on Intelligent Lessons Learned Systems

- Objective: Examine state-of-art on ILLS
- www.aic.nrl.navy.mil:80/~aha/lessons/
- www.aic.nrl.navy.mil/AAAI00-ILLIS-Workshop



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